

WHAT IS CLAIMED IS:

1. A scanning microscope comprising:
a light source that emits an exciting light beam which is suitable for exciting an energy state in the specimen and that emits a stimulating light beam for generating stimulated emission in the specimen, whereby the exciting light beam and the stimulating light beam overlap in a focal region at least partially,
at least one detector for detection of the emitted light proceeding from the specimen and
a module that is positionable in the beam path of the scanning microscope and that comprises multiple optical elements which shape the stimulating light beam.
2. The scanning microscope according to Claim 1, wherein the module comprises a housing.
3. The scanning microscope according to Claim 1, further comprising an alignment device for alignment of the module with respect to the scanning microscope.
4. The scanning microscope according to Claim 1, further comprising banking elements which define a working position of the module with respect to the scanning microscope.
5. The scanning microscope, further comprising a bayonet attachment connecting the module to the scanning microscope.
6. The scanning microscope according to Claim 1, wherein the module comprises at least a portion of the light source.

7. The scanning microscope according to Claim 1, wherein the module comprises optics for spreading or focusing the stimulating light beam.
8. The scanning microscope according to Claim 1, wherein the module comprises at least one retardation plate.
9. The scanning microscope according to Claim 1, wherein the module comprises means for influencing the shape of the focus of the stimulating light beam in the focal plane.
10. The scanning microscope according to Claim 9, wherein the means for influencing the shape of the focus of the stimulating light beam generate an internally hollow focus.
11. A module comprising:
means for positioning the module in the beam path of the scanning microscope and multiple optical elements for shaping a stimulating light beam.
12. The module according to Claim 11, further comprising a housing.
13. The module according to Claim 11, wherein the means for positioning comprises a bayonet attachment.
14. The module according to Claim 11, further comprising an alignment device for alignment of the module with respect to the scanning microscope.
15. The module according to Claim 11, further comprising a light source that emits the stimulating light beam.

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16. The module according to Claim 15, wherein the light source is a laser .
17. The module according to Claim 11, further comprising optics for spreading or focusing the stimulating light beam.
18. The module according to Claim 11, further comprising means for influencing the shape of the focus of the stimulating light beam in the focal plane.
19. The module according to Claim 18, wherein the means for influencing the shape of the focus of the stimulating light beam consists essentially of a retardation plate.
20. The module according to Claim 18, wherein the means for influencing the shape of the focus of the stimulating light beam in the focal plane generate an internally hollow focus.